

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

# 2SA1356

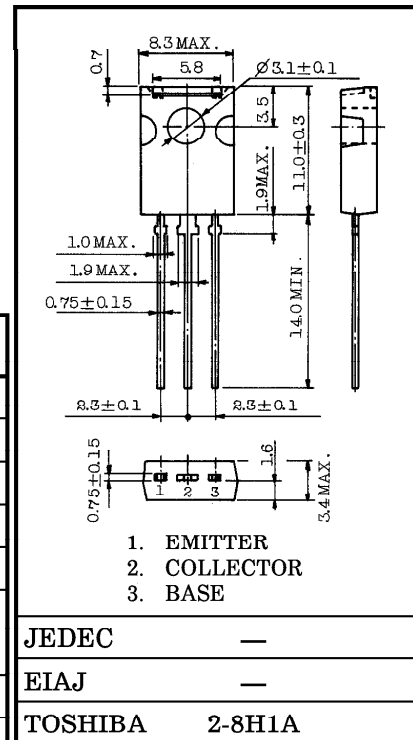
AUDIO POWER AMPLIFIER APPLICATIONS.

Unit in mm

- Low Saturation Voltage  
:  $V_{CE(sat)} = -0.32V$  (Typ.) ( $I_C = -500mA$ ,  $I_B = -50mA$ )
- High Collector Power Dissipation :  $P_C = 1.2W$  ( $T_a = 25^\circ C$ )
- Complementary to 2SC3419

MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		$V_{CBO}$	-40	V
Collector-Emitter Voltage		$V_{CEO}$	-40	V
Emitter-Base Voltage		$V_{EBO}$	-5	V
Collector Current		$I_C$	-800	mA
Base Current		$I_B$	-80	mA
Collector Power Dissipation	$T_a = 25^\circ C$	$P_C$	1.2	W
	$T_c = 25^\circ C$		5	
Junction Temperature		$T_j$	150	$^\circ C$
Storage Temperature Range		$T_{stg}$	-55~150	$^\circ C$



Weight : 0.82g

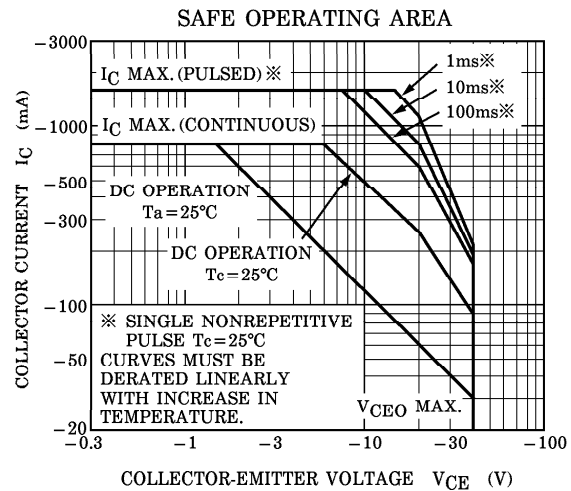
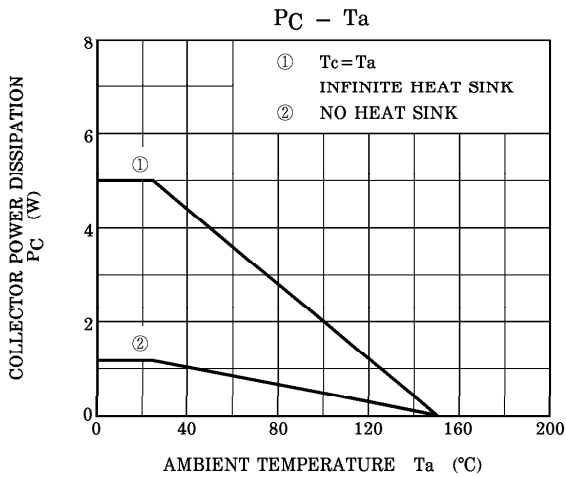
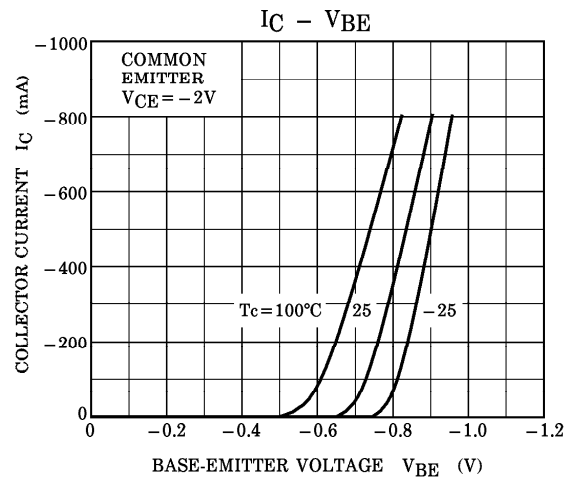
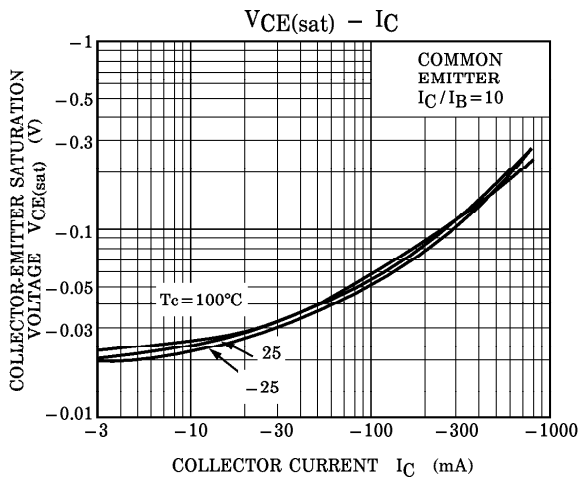
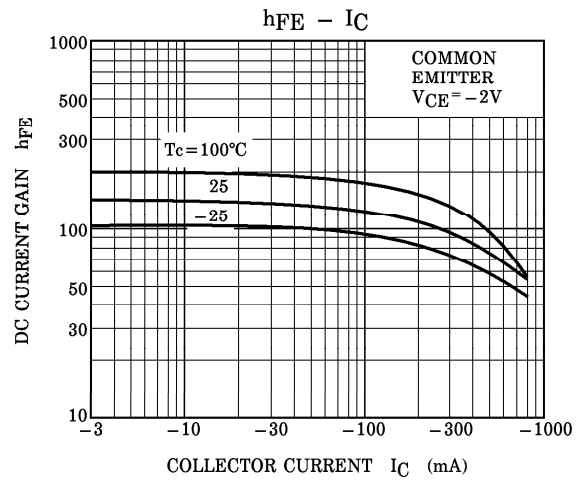
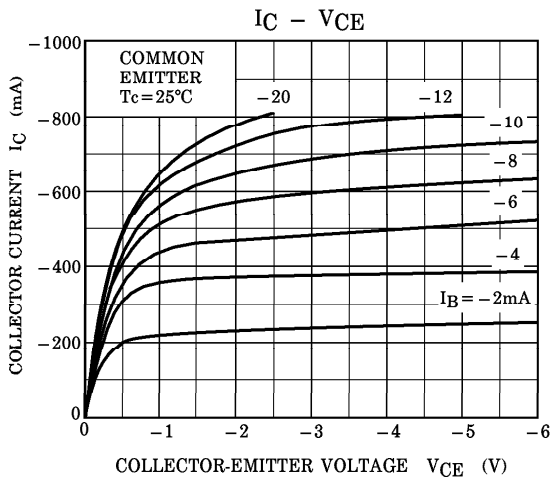
ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -40V$ , $I_E = 0$	—	—	-1.0	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -5V$ , $I_C = 0$	—	—	-1.0	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{CEO}$	$I_C = -10mA$ , $I_B = 0$	-40	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = -2V$ , $I_C = -50mA$	70	—	240	
	$h_{FE(2)}$	$V_{CE} = -2V$ , $I_C = -800mA$	13	50	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -500mA$ , $I_B = -50mA$	—	-0.32	-0.8	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = -2V$ , $I_C = -500mA$	—	—	-1.3	V
Transition Frequency	$f_T$	$V_{CE} = -2V$ , $I_C = -0.5A$	50	100	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V$ , $I_E = 0$ , $f = 1MHz$	—	20	—	pF

Note :  $h_{FE(1)}$  Classification O : 70~140, Y : 120~240

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